



PTO/SB/08a/b (08-03)  
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<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete If Known</b>			
		Application Number	10/685,258		
		Filing Date	October 14, 2003		
		First Named Inventor	Antony M. Carr		
		Art Unit	1642		
		Examiner Name	Not Yet Assigned		
Sheet	1	of	4	Attorney Docket Number	27866/34132B

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PR	A1	5,912,143	12/1996	Bandman et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
PR	B1	WO 89/03891				
PR	B2	WO 90/13667				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	C1	<del>Ahn et al., Nature Genetics 5 (4): 283-291, 1993</del>		
PR	C2	Al-Khodairy, et al., "DNA repair mutants defining G <sub>2</sub> checkpoint pathways in <i>Schizosaccharomyces pombe</i> ," <i>EMBO, J.</i> , 11:1343-1350 (1992)		
PR	C3	Al-Khodairy, et al., "Identification and Characterization of New Elements Involved in Checkpoint and Feedback Controls in Fission Yeast," <i>Mol.Biol.Cell</i> , 5:147-160 (1994)		
PR	C4	Allen, et al., "The SAD/RAD53 protein kinase control multiple checkpoints and DNA damage-induced transcription in yeast," <i>Genes Dev.</i> , 8:2401-2415 (1994)		
PR	C5	Barbet, et al. "Versatile shuttle vectors and genomic libraries for use with <i>Schizosaccharomyces pombe</i> ," <i>Gene</i> , 114:59-66 (1992)		
PR	C6	Beamish, et al., "Radiosensitivity in ataxia-telangiectasia: anomalies in radiation-induced cell cycle delay," <i>Int.J.Radiant.Biol.</i> , 65:175-184 (1994)		
PR	C7	Bowie et al. ( <i>Science</i> , 1990, 257: 1306-1310)		
PR	C8	Burgess et al. ( <i>J of Cell Bio.</i> 111: 2129-2138, 1990)		
PR	C9	Carr, et al., "The cellular responses to DNA damage," <i>Trends in Cell Biol.</i> 5:32-40 (1995)		
	C10	<del>Cawthon et al. Genomics 9 (3): 446-460, 1991.</del>		

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PR	C11	Chein, <i>et al.</i> , "The two-hybrid system: A method to identify and clone genes for proteins that interact with a protein of interest," <i>Proc. Nat'l. Acad. Sci. (USA)</i> 88:9578-9582 (1991)	
PR	C12	Cimprich, "cDNA cloning and gene mapping of a candidate human cell cycle checkpoint gene," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , vol. 93, pp. 2850-2855 (1996)	
PR	C13	Deng, <i>et al.</i> , "Mice Lacking p21 <sup>CIP1/WAF1</sup> Undergo Normal Development, but Are Defective in G1 Checkpoint Control," <i>Cell</i> , 62:675-684 (1995)	
PR	C14	Drwings, <i>et al.</i> , "NIGMS Human/Rodent Somatic Cell Hybrid Mapping Panels 1 and 2," <i>Genomics</i> 16:311-314 (1993)	
PR	C15	El-Deiry, <i>et al.</i> , "WAF1, a Potential Mediator of p53 Tumor Suppression," <i>Cell</i> , 75:817-812 (1993)	
PR	C16	Enoch, <i>et al.</i> , "Fission yeast genes involved in coupling mitosis to completion of DNA replication," <i>Genes Dev.</i> , 6:2035-1046 (1992)	
PR	C17	Geysen, <i>et al.</i> , "A Priori Delineation of a Peptide which Mimics a Discontinuous Antigenic Determinant," <i>Mol. Immunol.</i> 23:709-715 (1986)	
PR	C18	Greenwell, <i>et al.</i> , "TEL1, a Gene Involved in Controlling Telomere Length in <i>S. cerevisiae</i> , Is Homologous to the Human Ataxia Telangiectasia Gene," <i>Cell</i> , 82:823-829 (1995)	
PR	C19	Grimm, <i>et al.</i> , "Genetic engineering of <i>Schizosaccharomyces pombe</i> : A system for gene disruption and replacement using the <i>ura4</i> gene as a selectable marker," <i>Mol. Gen. Genet.</i> , 215:81-86 (1988)	
PR	C20	Groudine <i>et al.</i> (T91040), GENESEQ Database, National Center for Biotechnology Information, National Library of Medicine, Bethesda, Maryland.	
PR	C21	Groudine <i>et al.</i> (X01275) GENESEQ Database, National Center for Biotechnology Information, National Library of Medicine, Bethesda, Maryland.	
PR	C22	Gutz, <i>et al.</i> , In Handbook of Genetics, King, R.C., Ed., Plenum Press, New York, Vol. 1 pp. 395-446 (1974)	
PR	C23	Hari, <i>et al.</i> , "The <i>mei-41</i> Gene of <i>D. melanogaster</i> Is a Structural and Functional Homolog of the Human Ataxia Telangiectasia Gene," <i>Cell</i> , 82:815-821 (1995)	
	<del>C24</del>	<del>Harris <i>et al.</i>, J. of the Am Society of Nephrology 6: 1125-1133, 1995.</del>	
PR	C25	Harper, <i>et al.</i> , "The p21 Cdk-Interacting Protein Cip1 Is a Potent Inhibitor of G1 Cyclin-Dependent Kinases," <i>Cell</i> , 75:805-816 (1993)	
PR	C26	Hartwell, <i>et al.</i> , "Cell Cycle Control and Cancer," <i>Science</i> , 266:1821-1828 (1994)	
PR	C27	Hiles, <i>et al.</i> , "Phosphatidylinositol 3-Kinase: Structure and Expression of the 110 kd Catalytic Subunit," <i>Cell</i> , 70:419-429 (1992)	

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PR	C28	Hillier et al. (R09128), Genbank Sequence Database, National Center for Biotechnology Information, National Library of Medicine, Bethesda, Maryland, publicly available April 5, 1995.	
PR	C29	Jimenez, et al., "The rad3 <sup>+</sup> gene of <i>Schizosaccharomyces pombe</i> is involved in multiple checkpoint functions and in DNA repair," <i>Proc.Nat'l.Acad.Sci.(USA)</i> 89:4952-4956 (1992)	
PR	C30	Kato, et al., "An essential gene, ESR1, is required for mitotic cell growth, DNA repair and meiotic recombination in <i>Saccharomyces cerevisiae</i> ," <i>Nucl.Acids.Res.</i> , 22:3104-3112 (1994)	
<del>PR</del>	<del>C31</del>	<del>Lamb, et al., "Inhibition of DNA replication by ionizing radiation is mediated by a trans-acting factor," <i>Int.J.Radiat.Biol.</i>, 56:125-130 (1989)</del>	
PR	C32	Lazar et al. (Molecular and Cellular Biology, 1998, 8: 1247-1252)	
PR	C33	Leach, et al., "Regional Localization of 188 Sequence Tagged Sites on a Somatic Cell Hybrid Mapping Panel for Human Chromosome 3," <i>Genomics</i> , 24:549-556 (1994)	
PR	C34	Maundrell, K., "nmt1 of Fission Yeast," <i>J.Biol.Chem.</i> , 265:10857-10864 (1990)	
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PR	C36	Murray, et al., "Cloning and characterization of the <i>S.pombe rad15</i> gene, a homologue to the <i>S.cerevisiae RAD3</i> and human <i>ERCC2</i> genes," <i>Nucl.Acids Res.</i> , 20:2673-2678 (1992)	
PR	C37	Nasim, et al., "Genetic Control of Radiation Sensitivity in <i>Schizosaccharomyces Pombe</i> , <i>Genetics</i> , 79:573-582 (1975)	
PR	C38	Painter, et al., "Radiosensitivity in ataxia-telangiectasia: A new explanation," <i>Proc.Nat'l.Acad.Sci.(USA)</i> 77:7315-7317 (1980)	
<del>PR</del>	<del>C39</del>	<del>Reiger et al. (Glossary of Genetics and Cytogenetics, Classical and Molecular, 4<sup>th</sup> Ed., Springer-Verlay, Berlin, 1978)</del>	
PR	C40	Rowley, et al., "Checkpoint controls in <i>Schizosaccharomyces pombe:rad1</i> ," <i>J.EMBO.</i> , 11:1335-1342 (1992)	
PR	C41	Savitsky, et al., "A single Ataxia Telangiectasia Gene with a Product Similar to P1-3 Kinase," <i>Science</i> , 268:1749-1753 (1995)	
PR	C42	Seaton, et al., "Isolation and characterization of the <i>Schizosaccharomyces pombe rad3</i> gene, involved in the DNA damage and DNA synthesis checkpoints," <i>Gene</i> , 119:83-89 (1992)	
<del>PR</del>	<del>C43</del>	<del>Schu, et al., "Phosphatidylinositol 3-Kinase Encoded by Yeast VPS34 Gene Essential for Protein Sorting," <i>Science</i>, 260:88-91 (1993)</del>	
PR	C44	Sheldrick, et al., "Feedback Controls and G2 Checkpoints: Fission Yeast as a Model System," <i>BioEssays</i> , 15:755-782 (1993)	
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PR	C45	Sumitomo Chem. Co. (Q47789), Genbank Sequence Database, National Center for Biotechnology Information, National Library of Medicine, Bethesda, Maryland, publicly available March 2, 1994.	
PR	C46	Walworth, <i>et al.</i> , "Fission yeast <i>chk1</i> protein kinase links that <i>rad</i> checkpoint pathway to <i>cdc2</i> ," <i>Nature</i> , 363:368-371 (1993)	
PR	C47	Weinert, <i>et al.</i> , "Mitotic checkpoint genes in budding yeast and the dependence of mitosis on DNA replication and repair," <i>Genes Dev.</i> 8:652-665 (1994)	
PR	C48	Weinert, <i>et al.</i> , "The <i>RAD9</i> Gene Controls the Cell Cycle Response to DNA Damage in <i>Saccharomyces cerevisiae</i> ," <i>Science</i> , 241:317-322 (1988)	

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